Published in final edited form as:

J Sex Res. 2015 ; 52(9): 1064–1074. doi:10.1080/00224499.2014.961185.

Understanding Condom Use Decision-Making among Homeless Youth using Event-Level Data

Yashodhara Rana¹, Ryan A. Brown¹, David P. Kennedy¹, Gery W. Ryan¹, Stefanie Stern¹, and Joan S. Tucker¹

¹RAND Health, RAND Corporation, Santa Monica, California, USA

Abstract

This is one of the first qualitative event-based studies to understand the various mechanisms through which multiple factors influence condom use decision-making among homeless youth. Event-level interviews which explore characteristics of the environment surrounding sexual events were conducted with 29 youth, who were asked to describe two recent sexual encounters. In thematic analyses of data across events, reasons that youth gave for engaging in unprotected sex included the expectation of having sex and use of alternative methods of protection against pregnancy. Other non-event factors that influenced condom use decision-making were related to attributes of the partnership (e.g., testing, trust and love, and assessments of risk) and attributes of the youth (e.g., perceptions of diseases, concerns over pregnancy, and discomfort using condoms). Additional event analyses conducted within the same individuals found that decision-making was influenced by multiple interacting factors, with different pathways operating for event and non-event factors. Future interventions should consider taking a multilevel and individualized approach that focuses on event-based determinants of risky sex in this population.

Keywords

adolescents/youth; at-risk; risk; behaviors; HIV/ AIDS prevention; vulnerable populations

With an estimated 1.6 million youth being homeless for at least one night in any given year in the United States (Toro, Dworsky, & Fowler, 2007), the sexual health of this vulnerable population should be an important public health concern. Runaway youth are at high risk of being infected with HIV compared to other youth (Rotheram-Borus et al., 2003) due to risky sexual practices such as having multiple and high-risk partners (Tevendale, Lightfoot, & Slocum, 2009) and frequently engaging in unprotected sex (Rosa, Montgomery, Hyde, Iverson, & Kipke, 2001). One study found nearly one-third of the sampled homeless youth to have some experience with trading sex (Tyler & Johnson, 2006). In addition, pregnancy rates are much higher among homeless youth. For example, one nationally representative study found that the lifetime pregnancy rate among girls between the ages of 14–17 years was about 5–7 times higher among girls living on the street (48%) or in shelters (33%) compared to those who were stably housed (7%) (Greene & Ringwalt, 1998).

In this study, we focus on decision-making about condom use because condoms are one of the most accessible and affordable tools to reduce the incidence of HIV/AIDS, STI transmission, and unintended pregnancies. Numerous studies have examined the correlates of condom use among homeless youth, focusing on individual, interpersonal, and contextual factors. Individual characteristics that are risk factors for unprotected sex include having a history of abuse, ambivalence about pregnancy, attitudes toward condoms and lack of motivation to ensure safe sexual health (Bailey, Camlin, & Ennett, 1998; Rotheram-Borus, Mahler, Koopman, & Langabeer, 1996) (Author et al., 2012). Interpersonal factors include the presence of poor social support, lack of positive peer norms and long term partnerships, all of which are associated with an increased likelihood of homeless youth engaging in unsafe sex. With respect to the event-level factors, which include characteristics of the environment surrounding sexual events, studies have primarily evaluated whether substance use during the event increases the likelihood of unprotected sex (Bailey, et al., 1998) (Author et al., 2012).

Even though these studies elucidate some of the reasons why homeless youth engage in risky sexual practices without protection, they suffer from two major limitations. First, studies have generally not fully explored the multiple levels of influences on condom use decision- making. Ecological models of health posit that individual behaviors are nested within multiple levels of influence (individual, inter-personal, contextual) and there is a dynamic interplay between behaviors and influences across different levels (Larios et al., 2009; McLeroy, Bibeau, Steckler, & Glanz, 1988; Sallis, Owen, & Fisher, 2008). Therefore, one can better understand engagement in a particular health behavior, such as condom use, by focusing on the many factors operating at multiple levels simultaneously. Yet, a review article that assessed the various perspectives taken towards understanding adolescent sexual health in the United States found that the majority of the studies focused only on individual characteristics and excluded the role of environmental influences (Salazar et al., 2010). With respect to the risk behaviors of homeless youth, a few recent studies have used a multilevel perspective to understand substance use and condom use behaviors among homeless youth (Author et al., 2012; Author et al., 2012)

Second, most previous studies have used quantitative survey-based methodology. Quantitative survey-based studies are beneficial in that they allow hypothesis testing and assessment of the magnitude of association between variables of interest. However, a limitation of this approach is that it cannot uncover the nuances of how these factors interact in complex ways. Consequently, such studies could be potentially ignoring confounding variables and thus lead to erroneous conclusions. For instance, a homeless female youth in a serious relationship might have decided with her boyfriend to cease using condoms. The same youth might also be engaging in alcohol consumption during sexual intercourse with the same partner. In this case, a survey item that asks, “Do you often drink before or during having sex?” might find a negative association between substance use and condom use. But this quantitative assessment does not explore the mechanism through which substance use impacts condom use and therefore could possibly overlook the importance of relationship factors.

Qualitative event-level studies address these limitations by allowing the researcher to conduct an in-depth examination of specific behaviors occurring at particular times. Event-level studies focus on particular sexual episodes and help explore the characteristics of the sexual event such as who, when, where and why. These studies also help to explore mechanisms as respondents are requested to describe in their own words what happened in a particular event and how this event compares to other similar events that they have experienced. Probes about predictors of interest, such as substance use, condom use or the status of their relationship with their partner at the time of the event, can also be used to understand the role of these predictors as well as establish the temporal pairing in that particular episodic event. In addition, such studies can inform quantitative studies by helping identify new factors and illuminating the mechanisms through which predictors operating at multiple levels influence outcomes simultaneously.

Qualitative event-level studies are especially helpful in understanding the social context in which homeless youths' sexual activities takes place. Past event-based studies conducted on other high risk populations have shown the usefulness of this approach in identifying event-based or contextual variables. These studies have identified a number of event-based factors relevant to condom use such as where the sexual event took place, conversations about condom use prior to sex, and expectations about whether sex would occur (McMahon, Tortu, Pouget, Hamid, & Neaigus, 2006; Tortu, McMahon, Hamid, & Neaigus, 2000). In a recent review, Marshall emphasized the importance of contextual factors in contributing to HIV transmission among high risk populations, yet few interventions target these factors (Marshall, 2008). We continue to lack a detailed understanding of how characteristics of the environment surrounding sexual events impact condom use decision-making among homeless youth.

The present study takes the innovative approach of using a qualitative event-level methodology to address the limitations of previous work and affords the opportunity to conduct an in-depth examination of homeless youths' sexual events. The primary aim of this descriptive and exploratory event-based study is to identify event specific factors that influence homeless youths' decision-making about condom use. We are also interested in identifying cases where the circumstances of sexual events are less influential than other factors. This event-based study will help address two key limitations of studies focusing on homeless youths' condom use behaviors by exploring the role of contextual factors and elaborating on how factors operating at multiple levels affect behavior at the same time. Data come from semi-structured interviews about two recent sexual events conducted with 29 homeless youth aged 13–23 in Los Angeles County, a geographic area with a relatively large population of homeless youth (Flaming & Tepper, 2004).

Methods

Sample

Between August and October 2007, we conducted semi-structured interviews about two recent sexual events as part of an initial qualitative phase of a larger quantitative study examining the social context of drug use and sexual behaviors among homeless youth. To capture a diverse sample of homeless youth and as wide a range of experiences as possible,

we used a stratified site sampling procedure. A list of all youth shelters and drop-in centers in Los Angeles County was compiled and then five sites were selected in order to maximize diversity in terms of geographic location, types of services offered (emergency shelter, drop-in center), and ages served (minors, young adults). Ultimately, two emergency shelters and three drop-in centers were selected. The number of structured interviews conducted at each site ranged from 3 to 8 (average = 5.8).

At each location, interviewers made a brief announcement about the study and invited interested youth to put their name on a sign-up sheet. Youth were selected to participate in the screening based on the order in which they signed up or selected via a random numbers table. For one shelter with very few homeless youth, youth were identified for screening by referral from shelter staff. Youth were administered a short eligibility screener for which they were paid \$3. For this phase of the study, youth were eligible if they were between ages 13–23, had left home for the first time prior to age 18, were not currently living with or receiving support from parents or guardians, had spent the previous night homeless and had at least one episode of sexual intercourse in the last 6 months. We adopted a 6 month timeframe because not all homeless youth have sex on a regular basis and we wanted to ensure that we captured a wide variation of experiences. Once deemed eligible, youth were invited to participate in the study. Youth who agreed to participate provided written consent/assent and completed the interview at that time.

Eighty-two youth were screened for the study and 37 of them met all criteria. Of these individuals, 29 youth completed the event-level interview and 7 refused to participate mostly because they did not have time. Although we did not restrict events to those involving heterosexual behavior, only one youth reported a non-heterosexual event which was characteristically very different from the rest of the sample and so we dropped this observation.

Among the 29 participants, there were 18 female and 11 male homeless youth. Although a large age range of the sample (13–23) was eligible to participate, more than 70% of the sample was 18 and above (mean age was 18.6 years; standard deviation = ± 2.8). Participants had on average 10.9 years of education (s.d. = ± 1.5) and 28% were currently enrolled in school at the time of the interview. In their lifetime, participants had been without a regular place to stay such as their own house, apartment, or room, or in the home of a family member or friend for a mean number of 2.6 years (s.d. = ± 2.6). With respect to sexual behavior, participants reported having an average of 21 partners in their lifetime (median = 8 partners) and 3.5 partners in the past 3 months. Alcohol or drug use prior to their most recent sexual event was reported by 55% of respondents.

Data Collection

To gather information about a diverse set of situations we used an event-level study design and asked participants about a) their most recent sexual event and b) their second most recent sexual event that differed from the first event. We asked them to pick a second event that differed in terms of condom use or, if that did not change during the last six months (i.e., always used a condom or never used a condom), an event that differed by alcohol and/or drug use (i.e., an event that did not involve alcohol or drugs if the first did and vice

versa) (Author et al., 2009). Out of 29 respondents, 18 respondents discussed two events and 11 respondents discussed one event. Eight respondents had consistent condom use and substance using behaviors with their serious partners. Consequently, they identified only 1 event. Of the remaining respondents, 1 respondent did not have time to elaborate on a second event and 2 respondents had experienced only 1 sexual episode in the last 6 months.

The protocol for the interviews was organized as a matrix grid. In this matrix, the rows consisted of the domains of interest and the columns represented different stages of the sexual event. The domains covered during the interview were: (a) context (when and where); (b) sexual behaviors practiced during the events; (c) thoughts and decision-making about condom use; (d) how respondents were feeling; and (e) substance use. The columns consisted of the following four stages: (a) set-up or the period when the couple met up; (b) pre-intimacy or the period when the couple decided to become intimate; (c) intimacy or the period during which sexual activity occurred; and (d) post-intimacy or the period after sexual activity occurred. With respect to the intimacy period, participants were specifically asked about condom use decision making and behavior and how their use of condoms in the events differed from their general use of condoms. To ensure interviewers covered all domains of interest, the interview protocol had a grid with checkboxes at the intersection of each row and column. Interviewers had to check all checkboxes before terminating the interview. In addition, we also used probes and open-ended questions to generate richer narratives and to ensure that all domains of interest were pursued. This method of interviewing has been used by our research team in past projects where they studied risky sex behaviors of homeless men and women (Author et al., 2012; Author et al., 2009).

Two male and three female researchers were trained to use the protocol and interview youth in private locations at the homeless shelters and drop-in centers. The protocol was approved by the Institutional Review Board of XX and a Certificate of Confidentiality was obtained from the National Institutes of Health. The semi-structured interviews took approximately one hour to complete and participants received \$25 compensation. All interviews were audio-recorded, transcribed and de-identified to protect participants' privacy.

Analysis

Since this research is descriptive and exploratory in nature, grounded theory methods were used to analyze the data (Strauss & Corbin, 1994). The analysis was conducted using two approaches. The first approach involved conducting an across events thematic analysis to identify key factors operating at the event level. The first author, also an experienced coder, started this process by closely reading a random sample of transcripts. The "open coding" process (Author, 2003) highlighted two key patterns in the data. First, while recapping their decisions to use condoms at the time of sexual events, respondents mentioned influencing agents specific to that particular event, as well as non-event factors. Second, non-event-based factors could be broadly classified into partnership and individual factors. The partnership based factors included characteristics of individuals' relationship with their partners whereas the individual level included individuals' feelings, comfort and rules regarding condom use. The first author treated these three factor groups as parent codes and marked appropriate text relating to these themes using the management software Atlas.ti.

Next, the first author again started the process of open coding within the marked text to identify sub-codes. The first author printed and made piles of all marked texts pertaining to each of the parent codes, read them in detail and noted sub-codes that referred to specific aspects of the parent code. Three project team members discussed, defined and labeled sub-themes which were added to the project codebook. The team paid special attention to code boundaries. Table 1 lists the major codes and sub-codes identified from the across events analysis. Once the codebook was finalized, the first author used Atlas.ti to mark contiguous blocks of text pertaining to each sub-code within the original marked texts. At the end of the coding process, there was a team based review of the coded output, especially to discuss cases where a given context overlapped multiple themes. In addition, there was cross checking with an earlier coded output which had some of the same sub-themes.

After all the text was coded, the first author followed accepted protocol for qualitative data analysis (Miles & Huberman, 1984). An Excel matrix was used to conduct across event analyses. Each row in the matrix represented one sexual event for each respondent, with the columns containing a brief qualitative description pertaining to each of the sub-themes. Using the qualitative descriptions, the first author created categorical variables for cross-tabulation purposes, calculated frequencies, and in some cases conducted cross-tabulations with condom use as the main dependent variable.

In the second analytic approach, the first author treated each respondent as a case to conduct within individual analysis of their decisions to use condoms. The goal of this second approach was to select case examples that illustrate how factors identified in the first approach play out and impact decision-making about condom use in actual sexual events. The first author re-read all of the interviews and categorized respondents into the event-based and non-event-based parent codes based on the key influencing factors at play. Within each parent code, one case was selected that best illustrated that theme to maximize contrast among the themes and illustrate diversity in the experiences of homeless youth.

Results

Unprotected sex was reported by 24 respondents in 30 of 47 events. Events where condoms were incorrectly used or taken off midway during the period of intercourse (2 of 47 events) were also coded as events where condoms were not used because respondents were exposed to risk even though they used condoms part of the time. Respondents provided rich narrative detail about their sexual events and when we asked them how well they remembered having sex with their partners, 90% of them (26 respondents) reported either remembering the event very well or fairly well. In addition, 61% of the events reported occurred during the past 30 days.

While analyzing reasons for condom use, respondents identified influencing agents that were proximal to the event and other factors that generally dictated their condom use decision making and behaviors. Three central themes emerged in the across events analysis: event themes, partnership themes, and individual themes. Event-based themes included the expectation of having sex, use of alternative methods of protection against pregnancy, and substance use as important sub-themes. Factors related to sex partners such as partner's HIV

testing status, trust and love for partner, and assessments of risk concerning casual partners influenced homeless youths' decisions to use condoms. In addition, individual perceptions of diseases, ambivalence about pregnancy, and discomfort using condoms were respondent characteristics that consistently appeared to affect homeless youths' willingness to practice safe sex. We have noted and briefly described these sub-themes in Table 1. In the following section, we discuss our findings pertaining to each of the above-mentioned sub-themes.

Event-based themes

Whether sex was expected—Unprotected sex appeared to be more likely to occur when sex was expected compared to unexpected sexual intercourse. Unprotected sex occurred in 21 of the 27 events where sex was expected compared to 9 of 20 events where sexual intercourse was deemed to be unplanned. To understand this apparent anomaly, we explored if there were other variables driving this relationship. We found that most of the events where sex was expected, yet did not include condom use, involved a serious partner (14 out of 21 such events) with whom respondents reported that they were less likely to use condoms because of various individual and partnership level factors. Respondents, especially those in serious relationships, gave several reasons why they knew they were going to have sex, such as sex being a routine activity in the relationship, the partner was enticing them the whole day, or it was a special occasion. A 19-year-old male youth described his experience this way: "Well, it all started earlier today, right after I woke up. She repeatedly told me that she wanted me" and another 23-year-old female youth recalled: "I knew I'd have sex that night . . . It was his birthday. It was a special occasion."

Alternative methods of protection against pregnancy—Among the 14 (out of 30) events where condoms were not used, 4 respondents mentioned not using condoms because the female partner was already pregnant. Four youth who were more worried about pregnancy than being safe were using alternative methods of protection against pregnancy such as birth control pills, vasectomy and emergency pills. On the other hand, 6 respondents all of whom were female youth mentioned using withdrawal methods (i.e., "pulling out") during sex.

Even though the withdrawal method does not protect against diseases, none of the respondents mentioned concerns about STIs and HIV/ AIDS while discussing it. Effectiveness of the withdrawal method against pregnancy depends on the willingness of the male partner to pull out in time. One 14-year-old female partner felt that she could stop her partner before ejaculation, "But I wasn't worried though, because I would make sure that before he comes I always stop" whereas 4 female respondents believed that their partners would take the right action: "But he knows when to pull out and stuff," (16-year-old female youth) and "maybe he'll pull out before he comes . . . maybe he knows better" (15-year-old female youth). One 22-year-old female realized that she could not trust her casual partner because, "Well, he told me he did not nut. He told me he was not able to" but when she woke up the next morning she felt that he had lied to her, "No way it leaks out like that."

Location of sexual event—Respondents also discussed where they had sex in relation to their ability to practice safe sex behaviors. Private spaces included partner/respondent's

house, motels and hotel rooms, and the homes of friends and extended family members. In terms of public spaces, sexual encounters most often occurred in squatting locations where either the respondent or their partner was living, parking lots, abandoned buildings, tents placed on streets, rooftops of buildings and a bathroom in a church. Five respondents mentioned the importance of location while discussing their decision to have sex. Two respondents mentioned waiting for opportunities to earn resources or sell belongings so that they could afford a private space to have sex as described by a 18-year-old female youth: “We've been planning since he got out of jail . . . we were like we have to go to grandma's and clean, she's going to give us money to give us a room, because we live on the street.”

Two homeless youth mentioned practical difficulties they faced with law enforcement officials who ticket, arrest or take away their blankets for having sex in public spaces. For these reasons, these youth mentioned that they rarely have time to plan their sexual activity in public spaces which could potentially hinder their ability to make condoms available for use:

It's been very spontaneous since the beginning, like anywhere. Back of a car, I did it in a closed trunk before, or a rental car that we had. Wherever, whenever, just as long as we're not going to get arrested, it doesn't really matter.

One of these two respondents also talked about how it was difficult to plan and prepare when one is having sex in public spaces: “We’ve been waiting a long time, so it wasn’t as planned as much as when we’re in a room, where like, we can just go at it.” One male 17-year-old homeless youth noted that he would always use condoms at home because it was a family rule.

Substance Use—Twenty-one respondents (26 of 47 events) mentioned using drugs or alcohol either before or during the time of the sexual event. The majority of these events included instances where both partners used either alcohol or drugs or both. Unprotected sex was somewhat more likely to occur in events that involved substances (19 out of 26 events) compared to substance-free events (11 out of 21 events). Despite this trend, our thematic analyses found that respondents felt that their use of substances influenced their decision to engage in sex but not always their use of condoms. Respondents noted that substance use made them feel more comfortable with their sexuality such that they felt “on cloud ten.” However, when it came to condom use, only 3 out of 21 respondents who engaged in substance use felt that substance use impacted their thinking and hindered their ability to use condoms. Some respondents stated that they had already made a decision not to use condoms either for partnership or individual specific reasons and therefore they considered intoxication as irrelevant. As the 19-year-old female youth said: “We had gone to get tested or whatever and because I had already known if he had an STI or not. So I don’t think alcohol really played any part in it [in the decision to use condom].”

In conclusion, we find that event-based reasons that influenced homeless youths’ condom use decision making included the expectation of having sex and use of alternative methods of protection against pregnancy. Although unprotected sex was more likely to occur in events that involved substances, the majority of youth felt that substance use did not impact their ability to use condoms.

Non-event-based: Partnership based factors

Overall, we found slightly higher rates of unprotected sex with steady partners (17 of 30 unprotected events) than casual partners (13 of 30 unprotected events). Respondents identified their relationships as being serious based on a variety of connections ranging from having children with the partner, being always together each day, sharing resources such as squatting locations, foods, drugs and alcohol to feeling an emotional connection with their partner. The duration of these relationships ranged from 2 weeks to 2.5 years. In contrast, casual relationships often involved ex-partners, “friends with benefits,” strangers and individuals with whom the respondent wanted to start a relationship so that they could feel special even for a short period of time: “I think [having sex with my ex] is the same reason why I always have sex is just, I don’t know, for the moment in time, like, you feel important. You feel like you matter . . . to him” (22-year-old female youth). In our analysis we found different partnership based factors at play.

Importance of HIV testing—In 15 of 47 events, 12 respondents (8 female and 4 male youth) mentioned HIV testing to play some role in determining whether they should use condoms in their relationships. Respondents mentioned inquiring about their partner’s sexual history, especially recent testing results for diseases and in some cases seeing lab results or testing together with their partner. After discussing testing results, respondents not only felt safe with their partners but some also felt that they were close to them and could trust them. For instance, one of the female respondents who was 20 years old and who had been homeless the last 2 years mentioned that she and her boyfriend used condoms from the first time they met until 8 months later when they got tested. Once she found that her partner was negative, she stopped using condoms with him because she “figured out that it was safe enough.” It is important to note that in a few cases, even though the respondents did not see their partner’s testing results, they took their partner’s words at face value and stopped using condoms. As one 19-year-old male youth explained: “I guess I’ve got to believe what she says, but she’s never proved it. I’ve been tested myself, yes.”

Trust and love for partner—In addition to testing, 10 respondents (8 females and 2 males) also stated several other reasons for trusting their partners. Respondents mentioned: “I really liked him a lot, and I trusted him, and that’s pretty much all” (20-year-old female youth) and “I love him. And it’s not like we’re trying to have a baby or anything, but, no, I just . . . I feel like I can trust him” (23-year-old female youth). Respondents trust for their partners also arose from the fact that they were always together with them (e.g., “He doesn’t leave my sight ever”), they loved them, they were in a monogamous relationship and that they knew that their partner was not messing around (e.g., “She just don’t go out and f**k everybody”). Few respondents stated that their concerns about trust and love influenced their condom use decisions especially for those in serious relationships where condoms appeared to symbolize trust/commitment or the lack thereof. A 21-year-old male talked about how reintroducing condoms would bring complications into his relationship because, “If she [his partner] sees me with a condom, she would think that’s suspicious, because she’ll think I am trying to f**k somebody else. Because she knows we don’t use condoms.” Another 18-year-old female homeless youth who has been in a serious relationship with her partner felt that,

“If it's only just us two like making a commitment, then why should we need to use a condom?”

Partner risk assessments—For respondents, especially in casual relationships, rules about condom use were influenced by their assessments of risk. More than 50% of respondents mentioned some partner-related characteristics on the basis of which they were willing to overlook risks posed by diseases and pregnancy. Partner characteristics most commonly cited by respondents were length of time having known the partner, the partner's appearance, and perception of the partner's promiscuity. According to a 15-year-old female respondent, if you had not known the partner for longer than a year, one should be using a condom. One 17-year-old male respondent indicated his rule was to always use condoms if he had just met a girl or had not been going out with her for very long.

Respondents described using cues about their partner's appearance, behavior or reputation to judge how likely they were to be infected with a sexually transmitted infection. They frequently mentioned considering a first-time partner or casual partner safe/unsafe based on whether they looked clean and healthy: “If she looked clean, and she smelled clean, nine times out of ten I would think she would be,” (19-year-old male) and “Some ugly, scabbed up looking, druggy prostitute . . . I would be really worried with one of those” (21-year-old male youth). According to one 21-year-old male respondent, “I have an idea of what a healthy vagina looks like. So as soon as XX was naked and I got down there and it tasted good and it didn't smell or anything, then it's probably good.” Even though most respondents mentioned risk assessments based on appearance, one of the male respondents indicated that he would know if someone was a “ho” [promiscuous] simply based on a bad vibe and another male respondent felt that such an assessment could be made based on the reputation of the girl in town.

In summary, partnership level influencing factors included if the partner had been tested and if the youth had a trusting and loving relationship. In the case of casual relationships, youth's rules about condom use were based on their assessment of the risks involved which was mostly driven by each partner's characteristics.

Non-event-based: Individual based factors

Concerns over diseases—Across sexual events and relationships/partners, concerns over diseases, pregnancy and discomfort using condoms influenced respondents' decisions to use condoms. All but 4 respondents expressed concerns over STIs and HIV/AIDS. Some examples of participants' responses included: “I know there's a lot of stuff out there, that's why I use condoms,” (18-year-old male youth) and “I don't want to get HIV, Chlamydia, gonorrhea, syphilis, none of that” (20-year-old female). One 22-year-old male respondent noted that although he was aware of various STIs, he started to pay attention to condom use only after he had become infected. When this individual had unprotected sex with one of his casual partners, he got chlamydia which he accidentally passed to his ex-girlfriend. Despite being aware of the possibilities of contracting STIs from unprotected sex, only 6 respondents (4 females and 2 males) had a firm rule of always engaging in protected sex.

For these reasons, it appears that individuals were consciously making decisions about condom use based on other factors.

Ambivalence about pregnancy—Respondents were equally concerned about pregnancy with 18 respondents (10 females and 8 males) stating firmly that they were not ready to have a child. Drawing on the experiences of others, one 15-year-old female youth felt that she was not ready to have a child because it would only function to complicate her life: “Just seeing a couple of my friends and his friends having babies at such a young age, we don't want to do that. And there's already drama enough with me and his relationship. We don't need any more.” Although individuals in both casual and serious relationships mentioned the risk of pregnancy as a deterrent to having unprotected sex, 4 female homeless youth in serious relationships purposively gave up using condoms because they identified pregnancy as a positive alternative in life. In particular, they felt that pregnancy would help them get off the street, facilitate access to services, strengthen their relationship and help them get their life back on track. Respondents stated: “Well, I know we're not in the best situation, but we think if we have a baby then we could get a close bond and get further help with ourselves” (20-year-old female) and, “Because he wanted a baby; because it was, I think, the quickest way to get off the street . . . they put you in transitional housing” (23-year-old female).

Discomfort using condoms—Ten respondents noted that they engaged or would engage in unsafe sex because of their discomfort with male condoms. Respondents' complaints included a range of opinions such as condoms took the feeling away, they felt weird and they messed up pleasure. One 22-year-old female respondent voiced her discomfort in the following manner, “I feel very uncomfortable with some rubber thing rubbing against me. And, it just doesn't feel like I'm having intimacy or anything. So, I just don't use it even though doctors have told me that I should.” Another 16-year-old female respondent mentioned having condoms during the time of the sexual event but not using them because, “They're all peppermint flavored, and the peppermint is dry. So those things hurt.”

With respect to individual level factors, those youth who were concerned about diseases and pregnancy were more likely to use condoms whereas youth who experienced discomfort using condoms were less willing to engage in safe sex behaviors.

Respondent Case Illustrations

In this second part of the results section, we present three case illustrations using fictitious names to protect respondents' identities. The selected examples illustrate how influences interact across experiences.

Event-level—Tanisha is a 16-year-old female youth who has been homeless for six months. In her lifetime, she has had sexual relations with three people of which two of the partnerships occurred in the past 3 months. She wants to use condoms because she is not ready to get pregnant. Tanisha described two sexual events which differed in terms of condom use. The first sexual event happened with her boyfriend with whom she had sex for

the first time. She had not expected them to have sex and in this event her boyfriend already had protection on him. The second event involved a casual partner and no protection was used this time. Tanisha explained that she was fine with having sex without protection because she wanted to see how it felt. Moreover, she was not concerned about getting pregnant because she felt that he would know when to “pull out and stuff.” She also added that she knew he did not have an STI because “I talked to his parents, and he goes to the doctor mostly all the time.” Tanisha did not talk to either partner about using condoms.

Partnership Level—Janelle has been homeless for the past 5 years. She fears catching sexually transmitted diseases or getting pregnant by someone she does not know. In her interview, Janelle described 2 sexual events with the same partner, her boyfriend Eric, whom she has been seeing for the past 7 months. In the first event, Eric had visited Janelle in her mom’s house and they had ended up having sex together. In the second event, both of them had a few drinks and had sex at the spur of the moment in a grocery store parking lot. In both events, Janelle did not use condoms because she never uses condoms with Eric. Eric does not like to use condoms and he had previously informed her that he did not have an STI. In addition, he told her not to worry because he would tell her if anything came up. Even though Janelle did not see Eric’s testing results she believed him because of her love and trust in him: “I really liked him a lot, and I trusted him, and that's pretty much all.” In addition, Janelle was okay having Eric’s baby because, “I really like him, and if I were to get pregnant I'd get my life under control. I'd be able to handle it. But not if I didn't know who the father was.”

Individual Level—Jeremie, a 19-year-old male, has been homeless for the past 2 years. In his interview, Jeremie described two typical sexual encounters with the same partner and in both events he did not use condoms. He explained that using a condom never crossed his mind because, “Me and the condom aren't good friends.” In fact, he claimed that it had been years since he last used a condom. Jeremie’s engagement in unprotected sex dates back to the very first time he had sex and his partner did not ask him to use protection. He describes that early experience as: “just the way I saw things being right. That's how I was used to doing it, and that's how I stuck with it.” He is not worried about pregnancy because he feels that there is always emergency contraception. The only times he notes he might use a condom is when his partner asks him to do so or when he feels she has an STI: “If she looked clean, and she smelled clean, nine times out of ten I would think she would be, so no. Me and condoms aren't friends at all.”

Discussion

Results from this study indicate that homeless youth are influenced by both event and non-event-based factors when it comes to condom use decision-making. Furthermore, consistent with social ecological models of health, we found that homeless youth experienced a dynamic interplay of factors operating at multiple levels as depicted in Figure 1. Even though one level of influence might appear to be central to that sexual episode, there can be other levels of influence simultaneously operating against the backdrop. For instance, the first case illustration emphasized the importance of contextual level factors and how these

factors can result in unprotected sexual episodes. However, both individual and partnership level factors were also at play.

The three case illustrations also demonstrate that there is no one standard combination of influence that is applicable to all homeless youth. In addition, there is considerable variation in how the different levels of influence interact and influence actual sexual events both within and across individuals. Janelle and Jeremie have regular sexual partners and both were aware of diseases and the risk of pregnancy. Janelle was willing to have unprotected sex with her partner because of her love and trust in him, whereas Jeremie had a strong preference of not using condoms irrespective of his relationship status. When contrasted against each other, these two cases illustrate how homeless youth in relationships might experience different proximal influencing agents that impact their willingness to have unprotected sex. The influences of the 'relationship' variable might be moderated by the strength of individuals' rules, motivations and preferences. In this manner, similar to other quantitative studies that have adopted a multilevel approach, we find multiple levels interacting and influencing condom use decision-making in our qualitative findings (Marshall, 2008) (Author et al., 2012).

These findings hint at two major weaknesses in existing interventions. Some do not simultaneously target multiple factors addressing barriers to condom use at the individual, partnership and contextual levels. For instance, Ecologically Based Family Therapy (EBFT) focuses on family reconnection, enhancing problem solving skills among family members and providing some HIV prevention sessions without tackling partnership level issues (Naranbhai, Abdool Karim, & Meyer-Weitz, 2011). Similarly, peer-based interventions focus on reducing risk behaviors by using peers as a medium to increase knowledge and provide strategies to practice safer behavior without addressing the role of feelings, trust and love in relationships that might complicate the use of safe sex methods (Booth, Zhang, & Kwiatkowski, 1999). We believe that not addressing the interplay of factors at different levels might hinder such programs' abilities to achieve maximum impact. Perhaps this is one reason why Naranbhai et al. (2011) in their systematic review of interventions to modify sexual risky behaviors for preventing HIV in homeless youth concluded that more research is still needed to identify effective strategies for this population (Naranbhai, et al., 2011).

Second, it might be useful to tailor HIV program content to the specific needs of youth. Existing prevention programs tend to use a "one size fits all" approach without giving heed to the fact that the interplay of factors at different levels works differently both across individuals as well as within sexual episodes for the same individual. For instance, HIV prevention programs focusing on prevention knowledge and self-efficacy might have limited impact on homeless youth in relationships if they do not address the role of emotions, love and trust as risk factors for engaging in unprotected sex. A program that offers both core skill sessions and a menu of optional sessions that can be tailored to the needs of youth might be a promising approach. This type of tailored HIV prevention approach has demonstrated efficacy with adults. In Project Respect, for instance, HIV counselors help individuals identify risk factors and develop a individualized risk reduction plan at the beginning of the intervention. Additional sessions address core issues such as social norms,

efficacy, condom use along with discussing the success and barriers facing the individual's risk reduction plan (Centers for Disease Control and Prevention, 2009).

Our findings also reinforce the continued inclusion of education about safe sex practices, especially around condom use, in future interventions. Several respondents in our interviews mentioned feeling safe using protective methods such as pulling out or withdrawal before ejaculation despite such methods being unreliable for avoiding pregnancy and protecting individuals from STIs. The practice of withdrawal as a protective measure warrants attention because past studies have found that youth frequently use withdrawal methods (Sznitman et al., 2009), and one study of 277 sexually active homeless youth found that 19% had used withdrawal during their last sexual event (Author et al., 2012). Youth often note using withdrawal alternatively with condoms and some even consider it as a method to avoid pregnancy and diseases (Higgins et al., 2013). Additionally, homeless youth described a range of strategies to assess risk including some that were highly inaccurate, for instance those based on physical appearance. Likewise, some respondents were willing to take the risks associated with unsafe sex because of their discomfort with using male condoms. These instances indicate that some homeless youth would benefit from having their inaccurate risk assessment rules corrected, whereas others need to learn what constitutes a safe sex method, the limitations of each of these methods and how to properly use a condom.

Similar to other studies, we found that homeless youth also described engaging in risk behaviors based on feelings of trust and wanting intimacy (Author et al., 2012). In serious relationships in particular, not using condoms often symbolized trust and as respondents started trusting their partners they often made a conscious decision not to use condoms. The problematic nature of such decisions is evident when youth indicate that they would decide to have unprotected sex on blind faith, without knowing their partner's past sexual history or current testing results. Equally problematic were cases when respondents mentioned that they could not re-introduce condoms in their relationships for fear that their partners would think that they were cheating on them. Therefore, it is important for HIV prevention programs to address these types of relationship issues and the emotional feelings that can prevent sound decision-making. A growing body of literature is positing the effectiveness of couple-based interventions in promoting safe sex behaviors by addressing relationship context, communication and intimacy among similar populations (Burton, Darbes, & Operario, 2010; Koniak-Griffin et al., 2008). We believe that there are lessons to learn here and that addressing emotional feelings is especially important in the case of homeless youth whose experience neglect and may have stronger desires of wanting to be loved such that they are willing to ignore risks.

Future work will especially benefit by trying to understand how some event-based variables, such as the expectation of having sex, impact decision-making about condom use. Some studies have shown that adolescents are more likely to use condoms when sex is expected (Diane et al., 2003), whereas other studies have reported the opposite (Author et al., 2012). Most respondents in the present study reported knowing in advance that they were going to have sex and the majority of those did not use a condom. In this study, a close reading of the qualitative descriptions of sexual events highlighted that this association was likely due to

the fact that most of these events involved a serious partner. Quantitative studies have not yet teased out this association. Thus, future quantitative studies should consider controlling for the nature of partnership when evaluating the impact of sex expectation on condom use.

Limitations

Despite the contributions of this study to better understand the circumstances surrounding sexual events among homeless youth and the multiple levels of factors that influence their decisions to use condoms, there are some limitations to the findings of this study. For example, results are based on a small, convenience sample of youth who were recruited from service sites in Los Angeles County. Thus, results may not generalize to homeless youth who are not engaged in services or who reside in other geographic locations. In addition, we did not ask respondents if they were having ongoing and severe alcohol or drug use problems, or if they were currently engaged in sex trade. The factors influencing decision-making about condom use may differ for homeless youth facing these particular challenges. Finally, although small qualitative studies such as this one are valuable in terms of generating hypotheses about the factors that might influence condom use decision-making, it is important for future research, informed by these findings, to use quantitative methods and larger samples to test these associations in a more systematic way.

Conclusions

This is one of the first qualitative event-based studies to understand the various mechanisms through which multiple factors influence condom use decision-making among homeless youth. This study's findings are consistent with social ecological models of health that conceptualize behaviors as being nested within multiple levels of influence. In our analyses, we found that event and non-event levels of influence were experienced differently across individuals, as well as within sexual episodes for the same individual. For these reasons, we believe that future interventions will benefit from taking a multilevel and individualized approach toward HIV prevention. This approach should be a union of individual, relationship and contextual level factors that are tailored to the unique needs of the youth. In addition, our findings suggest that both research and policy efforts should focus more attention on contextual factors that limit the ability of homeless youth from practicing safe sex behaviors. Homeless youth in our study discussed the challenges of planning ahead when sexual events occurred in public spaces, where they were more concerned about evading police than engaging in safe sex. Two female homeless youths also mentioned wanting to have a child mainly to access housing that would help them get their life on track (Smid, Bourgois, & Auerswald, 2010). There is growing evidence that stable housing can result in positive health outcomes and reduced risk behavior among homeless adults (Aidala, Cross, Stall, Harre, & Sumartojo, 2005; Fitzpatrick-Lewis et al., 2011). Given how frequently youth in the present study mentioned the importance of public resources, devoting more resources toward environmental factors such as expanding existing housing programs might have an indirect benefit on the sexual health of homeless youth.

Acknowledgments

The authors disclosed receipt of the following financial support for the research authorship and or publication of this article: This research was sponsored by Grant R01DA020351 from the National Institute on Drug Abuse (P.I. Joan Tucker). We thank the youth who shared their experiences with us and the service agencies for their collaboration. We also thank Glenn J. Wagner for his invaluable comments in the several drafts of this manuscript.

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Figure 1.

Multiple Levels of Influence on Condom use Decision-making at the time of the Sexual Event

Section 1: Individual is influenced by factors operating at all three levels.

Section 2: Individual is influenced by factors operating at the individual and event levels.

Section 3: Individual is influenced by factors operating at the event and partnership levels.

Section 4: Individual is influenced by factors operating at the individual and partnership levels.

Table 1

Example of Quotes under Parent codes and Sub-codes

	Short Description	Exemplary Quotes
Parent Code 1: Event-Based		
Sex expectation	Prior to the sexual event, whether individual knew/ felt/ thought that he/ she was going to have sex	"I didn't have none [condoms] . . . because I didn't know it was going to happen."
Use of alternative methods of protection against pregnancy	Either prior or at the time of the sexual event, individual used any form of protection except for condoms	"Yeah, but he knows when to pull out and stuff."
Location	Location where the sexual event occurred	"Outside you have to be very careful. We've been waiting a long time, so it wasn't as planned as much as when we're in a room, where like, we can just go at it."
Substance use	Whether the individual or partner consumed alcohol, drugs or both either just prior or during the sexual event	"This is the worst thing about crystal meth, the memory while having sex is horrible"
Parent Code 2: Partnership		
Testing	Ideas, beliefs, thoughts, perceptions, communication and behaviors related to testing	"When we first met, until we got tested. And then once I found out that he was negative, that's when we stopped using condoms."
Trust and love for partner	Romantic feelings for partner	"I really liked him a lot, and I trusted him, and that's pretty much all. Like, I trusted that he didn't have anything wrong with him."
Partner risk assessments	Clues or strategies to assess risk from sexual partner	"If she was a dirty person or if everybody knew her in town. What we call those is a Hollywood Ho."
Parent Code 3: Individual		
Concerns about diseases	Individual concerns about contracting diseases such as STDs and HIV/ AIDs	"Because I didn't know them that well, so I didn't know what kind of STDs they had or nothing like that"
Pregnancy ambivalence	Feelings, desires and decisions concerning pregnancy in relationships	"I really like him, and if I were to get pregnant, I'd get my life under control. . . Yeah, because then I would have to take care of something besides myself."
Discomfort using condoms	Reasons why individuals find using contraception inconvenient or uncomfortable	"Because you know sometimes when you have a condom on, you can't feel shit."